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Behavioral, Social, and Nutritional Problems in Childhood: An In-Depth Case Study of Stubbornness, ADHD, Social Isolation and Malnutrition

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Behavioral, Social, and Nutritional Problems in Childhood: An In-Depth Case Study of Stubbornness, ADHD, Social Isolation and Malnutrition

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Abstract:

The present study was conducted to explore the developmental experiences of a child presenting with a combination of behavioral, social, and nutritional difficulties, specifically stubbornness, Attention-Deficit/Hyperactivity Disorder (ADHD), social isolation, and malnutrition. The study sought to provide a holistic understanding of the child's experiences by examining the relationships among these interconnected challenges .The case involved a six-year-old child. Particular attention was given to the child's developmental history, family circumstances, educational experiences, social relationships, health status, and nutritional habits in order to obtain a comprehensive picture of the factors influencing his adjustment and functioning. A qualitative case study design was adopted. Information was gathered through multiple sources, including interviews with parents and teachers, direct observations, educational and medical records, and nutritional assessments. Difficulties associated with ADHD appeared to influence attention, self-regulation, and peer relationships, while stubborn behavior contributed to conflicts with adults and challenges in everyday functioning. Social isolation reduced opportunities for social learning and positive peer interaction, whereas nutritional problems appeared to affect physical well-being, energy levels, and concentration. The findings support the value of comprehensive assessment practices and multidisciplinary approaches that address the child's needs.

Keywords: Childhood, Behavioral Problems, Stubbornness, ADHD, Social Isolation, Malnutrition, Case Study, Child Development

Introduction

Childhood is widely recognized as a critical period in human development during which rapid biological maturation, cognitive growth, and social learning occur in a highly interconnected manner. During this stage, children gradually

acquire the foundational capacities required for self-regulation, emotional expression, and social participation (Shonkoff & Phillips, 2000).

Behavioral problems such as ADHD and stubbornness are among the most commonly reported concerns in child psychology and educational practice. ADHD is characterized by persistent patterns of inattention, hyperactivity, and impulsivity that interfere with functioning across home and school environments (Barkley, 2006a). Stubbornness, while sometimes considered part of normative autonomy development, becomes clinically significant when it is persistent, inflexible, and associated with noncompliance and functional impairment. Research has shown that both patterns are linked to academic difficulties, disciplinary challenges, and strained caregiver–child relationships (Mash & Barkley, 2002)

Social functioning represents another essential domain of child development, as it shapes the child's ability to form relationships, communicate effectively, and participate in peer activities. Social isolation, defined as reduced peer interaction and limited engagement in social contexts, has been identified as a significant risk factor for emotional and behavioral maladjustment. (Rubin, Bukowski, & Parker, 2006)

Empirical evidence indicates that malnutrition and micronutrient deficiencies, particularly iron deficiency, are associated with reduced attention, impaired learning capacity, and behavioral instability (Grantham-McGregor & Ani, 2001). Furthermore, parasitic infections such as intestinal helminths have been shown to impair nutrient absorption and contribute to growth retardation and developmental delays (Crompton, 2006).

LITERATURE REVIEW:

Behavioral Problems

Behavioral problems in children refer to persistent patterns of behavior that deviate from expected developmental norms and negatively affect functioning in home, school, and social environments. These behaviors may include aggression, noncompliance, impulsivity, and difficulties in emotional regulation Achenbach and Rescorla (2001)

Behavioral problems are enduring patterns of maladaptive behavior that interfere with children's emotional, social, and academic development (Campbell, 1995). Emerging primarily during early childhood, these

difficulties are influenced by temperament, parenting styles, and environmental factors, and may persist into later developmental stages if not addressed effectively (Mash & Barkley, 2002; Rutter, 2006).

Behavioral problems are generally categorized as internalizing or externalizing difficulties (Mash & Barkley, 2002). Internalizing problems include anxiety, social withdrawal, and low self-esteem, which often remain less visible despite their significant effects on psychological well-being (Achenbach & Rescorla, 2001; Liu et al., 1999). These difficulties are associated with biological predispositions, family influences, stressful experiences, and temperament characteristics, and may increase vulnerability to later emotional and social problems (Rutter, 2006; Mash & Barkley, 2002).

Anxiety is among the most common internalizing disorders and is characterized by excessive fear and worry that can impair daily functioning (Ollendick & March, 2004). Likewise, emotional distress reflects negative emotional states such as sadness, frustration, and helplessness, often arising from personal and environmental stressors (Mash & Barkley, 2002; Compas, 1987).

In contrast, externalizing problems involve observable behaviors such as aggression, defiance, hyperactivity, and impulsivity (Gortmaker et al., 1990). These behaviors are shaped by environmental experiences, parenting practices, and neurodevelopmental factors (Kolko & Kazdin, 1993; Rutter, 2006). Although internalizing and externalizing difficulties differ in their presentation, both can significantly impair child development and often occur together, highlighting the importance of early identification and intervention (Mash & Barkley, 2002).

Stubbornness

Stubbornness is a common childhood behavior characterized by persistent resistance to instructions and a strong insistence on personal preferences. Although some degree of stubbornness is developmentally normal and reflects emerging autonomy, it becomes problematic when it is frequent, intense, and interferes with social, academic, and family functioning (Kearney & Kearney, 2003; Erikson, 1963.(

Behavioral theories suggest that stubbornness develops through repeated interactions in which oppositional behavior is unintentionally reinforced by caregivers (Patterson et al., 1992; Rosenberg, Rosenberg, & Turin, 1998). Research further indicates that temperament, parenting styles, family dynamics, and environmental stressors contribute to its development (Burket et al., 2006; Stein & Zweiback, 2004).

Children who display stubborn behavior often refuse instructions, argue with adults, and have difficulty adapting to rules or changes in routine, which may negatively affect academic achievement and peer relationships (Mash & Barkley, 2002). Persistent stubbornness has also been associated with social difficulties, peer rejection, and later behavioral maladjustment (Kazdin, 2005).

However, when appropriately guided, moderate levels of persistence and assertiveness may support the development of independence and self-confidence (Berk, 2005). Therefore, stubbornness should be understood within its developmental and environmental context rather than as an isolated behavioral trait (Campbell, 1995; Wahler & Fox, 1981).

2.2.2 . ADHD

Attention-Deficit/Hyperactivity Disorder (ADHD) is a common neurodevelopmental disorder marked by persistent inattention, hyperactivity, and impulsivity that impair functioning across home, school, and social settings (Barkley, 2006). Contemporary views conceptualize ADHD as a disorder of executive dysfunction and impaired self-regulation rather than simply excessive activity. Barkley (1997) highlights core deficits in behavioral inhibition that disrupt working memory, emotional control, and goal-directed behavior.

Inattention involves difficulties in sustaining focus, organizing tasks, and completing activities, often leading to poor academic performance and reduced learning efficiency (Barkley, 1997). Hyperactivity is expressed through excessive movement, restlessness, and difficulty remaining seated, which can disrupt structured environments such as classrooms (Mash & Barkley, 2002). Impulsivity reflects poor response inhibition, resulting in hasty actions, social conflicts, and difficulty considering consequences (DuPaul & Stoner, 2003)

ADHD has a multifactorial etiology involving genetic, neurobiological, and environmental factors, with strong evidence for heritability and differences

in brain regions responsible for executive control (Barkley, 2006; Hynd et al., 1991). Beyond core symptoms, ADHD significantly affects social functioning, often leading to peer rejection, low self-esteem, and social isolation, especially when combined with other developmental difficulties (DuPaul & Stoner, 2003).

Social Problems

Social development is essential for shaping emotional regulation, communication skills, and interpersonal competence in childhood (Hartup & Stevens, 1997). Social problems arise when children experience persistent difficulties in forming or maintaining relationships, including withdrawal, poor peer interaction, and communication deficits (Schneider, 1985; Gresham & Elliott, 1990).

These difficulties are not solely individual but emerge through complex interactions between child characteristics and environmental influences, particularly peer acceptance and rejection processes (Asher & Coie, 1990). Early peer difficulties may lead to long-term emotional and behavioral consequences, making early identification essential (Parker & Asher, 1987).

Social competence develops through continuous interaction and learning within peer contexts; limited engagement reduces opportunities to acquire essential social skills (Ladd, 1999). Bronfenbrenner (1979) further emphasizes that social functioning is shaped by multiple environmental systems, including family, school, and community contexts.

Social problems often co-occur with behavioral and emotional difficulties, reinforcing maladjustment over time (Mash & Barkley, 2002). Withdrawal is a key form of social difficulty characterized by reduced interaction and avoidance of peer engagement. Persistent withdrawal is associated with loneliness, poor self-concept, and later emotional disorders such as anxiety and depression (Rubin, Bukowski, & Parker, 2006).

Social Isolation

Social isolation in childhood refers to persistent low engagement in peer interactions and limited participation in social activities. While temporary solitude may be normal, chronic and involuntary isolation is associated with significant developmental risk (Rubin et al., 2003).

Social isolation has multiple pathways, including shyness, anxiety, peer rejection, and adverse family or environmental conditions (Rubin & Mills, 1988; Coplan & Rubin, 2001). It restricts opportunities for developing essential social skills such as communication, cooperation, and empathy, creating a self-reinforcing cycle of withdrawal and reduced social competence (Rubin et al., 2003).

It is strongly linked to emotional difficulties such as loneliness, low self-esteem, and sadness, and may contribute to long-term psychological maladjustment if persistent (Elliott et al., 2005; Asher & Paquette, 2003). Maladaptive behavior increases rejection, and rejection further strengthens withdrawal (Rubin et al., 2003).

Family and school environments play a critical role. Supportive parenting and inclusive school climates promote social engagement, while conflict, overprotection, or bullying increase isolation risk (Coplan & Rubin, 2001; Ladd, 1999). Over time, chronic isolation may lead to anxiety, depression, and impaired interpersonal functioning.

Nutritional Problems in Childhood

Nutritional problems in childhood include undernutrition, micronutrient deficiencies, and related conditions that negatively affect physical growth, cognitive development, and behavioral functioning (Pollitt, 1990; WHO, 2005). These problems often result from socioeconomic disadvantage, food insecurity, and inadequate caregiving practices (Ghosh & Shah, 2004).

Malnutrition affects physical growth, immunity, and overall development, leading to stunting, low weight, and increased vulnerability to illness (Berk, 2005). It also has strong effects on brain development, impairing attention, memory, and learning, particularly during early childhood when neural development is most rapid (Pollitt, 1990).

Iron deficiency is a major risk factor associated with reduced attention, fatigue, and impaired cognitive performance (Scrimshaw, 1991; Boccio & Iyengar, 2003). Long-term studies show that early nutritional deficits can have lasting effects on learning and behavior, even after treatment in some cases (Grantham-McGregor & Ani, 2006).

Parasitic infections such as helminths further worsen nutritional status by reducing nutrient absorption and increasing fatigue and anemia, which

negatively affect growth and school participation (Stephenson et al., 2000; Crompton & Nesheim, 2002). Obesity also represents a nutritional imbalance linked to emotional distress, behavioral difficulties, and social stigma, including peer rejection and withdrawal (Schwartz & Puhl, 2003).

Nutritional problems are also associated with irritability, reduced self-regulation, and attention difficulties, and may indirectly contribute to social withdrawal due to low energy and limited participation in peer activities (Liu et al., 2003; Liu & Raine, 2006). Overall, malnutrition reflects a complex interaction of biological, economic, and environmental factors (Sullivan et al., 2000).

Within this study, nutritional problems are considered a key factor in understanding the child's developmental profile, particularly in relation to ADHD, stubbornness, and social isolation, within a holistic developmental framework.

METHODOLOGY

Research Design : This study used a qualitative single-case study design to examine the interaction between stubbornness, ADHD, social isolation, and malnutrition in a real-life developmental context. The design was chosen to capture the complexity of these conditions within the child's natural environment rather than treating them as separate variables (Yin, 2003).

A case study approach allows for an in-depth and context-sensitive understanding of individual development, taking into account environmental and social influences (Stake, 1995). The selected case was purposefully chosen due to the coexistence of multiple developmental difficulties, making it suitable for detailed analysis rather than generalization (Merriam, 1998).

Data were collected through multiple sources, including interviews, observations, and school and health records, to ensure a comprehensive and credible understanding of the case (Yin, 2003; Smith, 1988). This qualitative approach was appropriate for exploring lived experiences and contextual factors that shape the child's behavior and development (Creswell, 1998).

Data Collection Methods

Data collection was conducted over a period of several months using multiple qualitative methods to obtain a comprehensive understanding of the

child's behavioral, social, and nutritional functioning. The process began with semi-structured interviews with the child's parents, followed by interviews with the child's classroom teacher. These interviews focused on the child's developmental history, behavioral characteristics, social relationships, eating habits, health status, school adjustment, and daily routines. The information obtained during these initial interviews provided a foundation for subsequent observations and guided the development of additional interview questions.

Following the initial interviews, a period of reflection and preliminary analysis was undertaken to identify key themes requiring further exploration. This process facilitated the planning of observational sessions and allowed emerging issues related to stubbornness, ADHD symptoms, social isolation, and nutritional concerns to be examined more closely within the child's natural environments.

Naturalistic observations were conducted in both school and home settings. School observations were carried out on several occasions during classroom activities, play periods, and routine interactions with teachers and peers. These observations focused on attention span, activity level, compliance with instructions, impulsive behavior, peer interaction, social participation, and responses to structured learning activities. Observing the child across different school situations provided valuable insight into the manifestation of behavioral and social difficulties within an educational context.

Home observations were conducted during daily family routines, including mealtimes, recreational activities, and interactions with family members. Particular attention was given to parent-child interactions, eating behaviors, emotional responses, compliance with requests, and patterns of social engagement. These observations contributed important contextual information regarding family dynamics, behavioral management practices, and nutritional habits that could not be fully captured through interviews alone.

The child was also engaged in informal conversations appropriate to his developmental level. These discussions focused on his feelings about school, friendships, family relationships, daily activities, and food preferences. Although the child was not expected to provide detailed explanations comparable to those of adults, his responses offered valuable insight into his experiences, perceptions, and emotional reactions to various aspects of daily life.

Upon completion of the observational phase, follow-up interviews were conducted with the parents and teacher. These interviews served to clarify issues that emerged during observations, verify interpretations, and gather additional information concerning specific behavioral, social, and nutritional concerns. The use of repeated interviews allowed for a deeper understanding of the child's developmental experiences and helped ensure the accuracy and completeness of the collected data.

In this study, document analysis was used as an essential supplementary method to support and enrich the qualitative findings obtained from interviews and direct observations. Within the framework of this in-depth case study of a 6-year-old child, documents provided important contextual and developmental information related to behavioral, social, and nutritional problems, particularly stubbornness, Attention-Deficit/Hyperactivity Disorder (ADHD), social isolation, and malnutrition. This method helped to build a more complete and developmentally sensitive understanding of the child's functioning across home and school environments.

The documents reviewed included school records, teacher notes, behavioral reports, attendance records, informal progress reports, and any available medical or nutritional documentation provided by parents or caregivers. Given the young age of the child, special attention was given to early developmental indicators, classroom behavior reports, feeding patterns documented by caregivers, and teacher observations regarding attention span, peer interaction, and compliance with instructions. These sources were particularly valuable in tracing how behavioral and social difficulties appear in early childhood and how they are expressed across different daily settings.

The study also applied the following scales:

- The ADHD Rating Scale–IV to the Case of
- The Disruptive Behavior Disorders Rating Scale
- The Child Behavior Checklist (CBCL)
- The Anthropometric and Nutritional Assessment

Quality, Validity and Reliability:

This qualitative case study ensured quality, validity, reliability, and trustworthiness across all stages to provide an accurate understanding of the 6-

year-old child's behavioral, social, and nutritional difficulties, including stubbornness, ADHD-related behaviors, social isolation, and malnutrition.

Validity was strengthened through data triangulation across interviews, direct observations, and document analysis, collected from parents, teachers, and caregivers. This approach ensured that findings reflected the child's real-life functioning rather than a single perspective. Interpretations were also made in line with the child's developmental stage to avoid over- or underestimating behaviors.

Reliability was enhanced through the use of consistent procedures in data collection, documentation, and analysis. All interviews and observations followed a structured and systematic approach, with detailed recording to ensure transparency and consistency. Repeated comparison of data across sources helped confirm stable behavioral patterns and reduced interpretive bias.

DEVELOPMENTAL HISTORY

Interviews with Adam's Family members:

"Adam is a 6-year-old boy in Grade 1 who was referred due to combined concerns involving ADHD-related behaviors, stubbornness, social isolation, and nutritional difficulties.

Interviews with family members revealed consistent patterns across home settings. From early childhood, Adam showed high activity levels, poor sustained attention, and difficulty completing tasks. Parents reported that he is easily distracted, needs repeated instructions, and struggles with daily routines such as dressing, organizing belongings, and school preparation (Barkley, 2006; Mash & Barkley, 2002.(

Stubbornness was described as a persistent and stressful feature. Adam often resists instructions, argues over simple tasks, and insists on doing things his own way, especially when routines change or when he is directed by adults. This behavior frequently leads to conflicts within the family and reflects strong resistance to external control.

A major concern was his eating behavior. Parents consistently described him as a highly selective eater with a very limited diet. He refuses many

nutritious foods, often rejects meals without tasting them, and may skip eating altogether if preferred food is not available. This has raised concerns about his growth, body weight, and energy levels.

Socially, Adam tends to prefer solitary play and rarely initiates interaction with peers. Although he shows occasional interest in other children, he often remains passive in group settings, avoids joining activities, and struggles to enter peer groups. Parents also noted that unsuccessful social experiences may lead to withdrawal and reduced motivation to interact.

Despite these difficulties, family members emphasized positive traits, including kindness, affection, and imagination. However, they also highlighted that Adam's behavioral, social, and nutritional problems appear interconnected, with each difficulty influencing the others in daily life.

Overall, the interviews present a coherent developmental profile characterized by attention deficits, oppositional behavior, selective eating, and social withdrawal, reinforcing the need for an integrated understanding of his condition.

Interview with Adam's Teacher:

Adam is a six-year-old child who shows a consistent pattern of developmental difficulties involving inattention, hyperactivity, impulsivity, oppositional behavior, social withdrawal, and nutritional concerns. These difficulties affect his academic performance, classroom behavior, peer relationships, and emotional adjustment.

According to his teacher, Adam is curious and intelligent, but his attention is highly unstable. He is easily distracted by environmental stimuli and often shifts between activities without completing tasks. He frequently requires repeated instructions and close supervision to remain engaged in classroom activities. He also shows weak task persistence and limited ability to follow through independently.

Impulsivity is another prominent feature. Adam often interrupts, responds without waiting, and struggles to control immediate reactions. This affects his classroom behavior and contributes to frequent peer conflicts, especially during group activities and games where turn-taking is required.

The teacher also reports clear oppositional tendencies. Adam resists instructions, particularly during transitions or non-preferred tasks. He may argue, refuse participation, or insist on doing tasks his own way. His frustration tolerance is low, and he may give up quickly when faced with difficulty, although he responds positively to encouragement and structured support.

Socially, Adam shows limited peer engagement. He often remains alone during breaks, struggles to initiate interaction, and misinterprets social cues. These difficulties sometimes lead to rejection from peers, which contributes to increasing withdrawal over time. He appears interested in friendships but lacks the skills and confidence to sustain them.

Regarding physical and nutritional status, the teacher notes that Adam is smaller than peers and often appears tired, especially later in the school day. He is described as a highly selective eater, and his limited diet is reported to affect his energy, attention, and emotional regulation in class.

Despite these challenges, the teacher emphasizes Adam's strengths. He is affectionate, creative, and responds well to positive reinforcement. He shows a genuine desire to learn and to be accepted by others.

Adam's own statements reflect awareness of his difficulties. He reports forgetting instructions, difficulty maintaining focus, sadness related to peer exclusion, and an internal sense of distraction described as "my brain keeps thinking about other things".

Overall, the interview highlights a closely interconnected pattern of ADHD symptoms, oppositional behavior, social isolation, and nutritional difficulties, all of which collectively influence Adam's learning, behavior, and emotional well-being.

Interview with the Pediatrician :

Dr. Ibrahim described Adam as a 6-year-old child presenting with a complex combination of behavioral, social, and nutritional difficulties. He noted that the case was not limited to feeding problems, but reflected an interconnected developmental pattern involving attention deficits, hyperactivity, impulsivity, stubborn behavior, social withdrawal, and poor nutritional intake

At the initial consultation, the main concern was low weight and highly restricted eating habits. Clinical assessment confirmed that Adam's weight was below age norms and that his diet was extremely selective. He consistently refused many foods based on sensory characteristics such as texture, smell, and appearance. Mealtimes were described as highly stressful, often involving refusal, negotiation, or emotional outbursts, indicating a persistent pattern of food-related rigidity.

From a behavioral perspective, Dr. Ibrahim observed clear ADHD-related features, including high activity levels, distractibility, difficulty sustaining attention, and poor impulse control. Adam frequently shifted between tasks, interrupted interactions, and struggled to remain engaged in structured activities. These behaviors were significant enough to interfere with learning, daily routines, and social functioning.

Socially, Adam showed a consistent pattern of withdrawal and limited peer interaction. Although he occasionally expressed interest in other children, he had difficulty maintaining relationships, often preferring solitary play or withdrawing from group situations. The physician noted that repeated social difficulties likely reduced Adam's confidence and contributed to further avoidance of peer interaction.

Dr. Ibrahim also highlighted the potential role of nutrition in shaping behavior and development. Mild nutritional deficiencies were identified, and while not severe, they were considered clinically relevant. He explained that inadequate nutrition may contribute to fatigue, irritability, reduced concentration, and lower emotional resilience, thereby worsening existing behavioral and social difficulties.

Importantly, Dr. Ibrahim emphasized that Adam's difficulties are interrelated rather than separate conditions. Attention problems affect learning and peer relationships, social isolation limits social skill development, stubborn behavior disrupts daily routines and feeding, and nutritional deficits may further reduce energy and cognitive functioning.

He concluded that effective intervention requires a multidisciplinary and integrated approach involving parents, teachers, and healthcare professionals. Addressing nutrition, behavior, and social development simultaneously was considered essential for meaningful improvement.

Overall, Adam was described as a bright child whose developmental challenges are best understood through the interaction of behavioral, social, and nutritional factors within a unified framework.

Results of study tools applied on Adam after observation

This study employed a set of standardized and clinically recognized assessment instruments to obtain a comprehensive and objective understanding of Adam's behavioral, emotional, social, and physical functioning. The selection of these tools was guided by DSM-IV diagnostic criteria and aimed to ensure that data were collected in a systematic and reliable manner across multiple developmental domains. Using more than one instrument also allowed for triangulation of information, which strengthens the validity of the findings by integrating perspectives from parents, teachers, and structured observational measures.

- **Application of the ADHD Rating Scale–IV**: To examine the severity of Attention-Deficit/Hyperactivity Disorder (ADHD) symptoms, the ADHD Rating Scale–IV (DuPaul et al., 1998) was administered to Adam's mother and classroom teacher. The scale is directly derived from the diagnostic criteria of the DSM-IV and evaluates the frequency of inattentive and hyperactive-impulsive behaviors observed in everyday settings. Ratings obtained from both informants were combined with behavioral observations and clinical interview findings to develop a comprehensive understanding of Adam's functioning

Table 1 Adam's Scores on the ADHD Rating Scale–IV

Dimension	Maximum Score	Adam's Score
Inattention	**27**	**24**
Hyperactivity–Impulsivity	**27**	**22**
Total Score	**54**	**46**

The results indicate that Adam demonstrated a very high level of ADHD symptomatology across both dimensions of the scale. His score of 24 out of 27 on the Inattention subscale suggests significant difficulties maintaining concentration, following instructions, organizing activities, and sustaining effort during tasks that require prolonged mental engagement. Information obtained from his mother and teacher consistently revealed that Adam was easily distracted by surrounding stimuli, frequently shifted from one activity to

another before completion, and often appeared inattentive even when directly addressed.

- **Application of the Disruptive Behavior Disorders Rating Scale (DBDRS) :** The Disruptive Behavior Disorders Rating Scale (DBDRS) developed by Pelham et al. (1992) is a standardized behavioral assessment instrument designed to evaluate symptoms associated with disruptive behavior disorders. In the present study, only the Oppositional Defiant Disorder (ODD) Subscale was utilized because it was considered the most appropriate measure for assessing the child's stubbornness, oppositional behavior, resistance to authority, and noncompliance with adult requests. The ODD subscale contains eight items corresponding directly to the DSM-IV diagnostic criteria for Oppositional Defiant Disorder. Each item is rated on a four-point scale ranging from 0 (Not at All) to 3 (Very Much), yielding a maximum possible score of 24.

The scale was completed by both Adam's mother and classroom teacher to obtain information regarding the frequency and severity of oppositional behaviors across different environments. The use of multiple informants provided a broader understanding of Adam's behavioral functioning and enhanced the credibility of the assessment findings. Previous research has demonstrated satisfactory reliability and validity for the ODD subscale, supporting its use in the assessment of oppositional and defiant behaviors among children (Pelham et al., 1992).

To evaluate the severity of Adam’s stubborn and oppositional behaviors, the Oppositional Defiant Disorder (ODD) Subscale of the Disruptive Behavior Disorders Rating Scale (DBDRS) (Pelham et al., 1992) was completed by both Adam’s mother and his classroom teacher. The scale is based on the diagnostic criteria of the DSM-IV and assesses the frequency of behaviors associated with oppositional behavior, defiance, argumentativeness, and resistance to authority figures. Information obtained from the rating scale was supplemented by interviews and direct behavioral observations conducted during the case study.

Table 4.2 Adam’s Scores on the ODD Subscale of the DBDRS

Dimension	Maximum Score	Adam’s Score
Oppositional Defiant Behaviors	**24**	**20**

The findings revealed a high level of oppositional and defiant behavior across both home and school settings. Adam obtained a score of 20 out of 24, indicating that many oppositional behaviors occurred frequently and interfered with daily functioning. Ratings provided by his mother and teacher were generally consistent, suggesting that these behaviors were not limited to a specific environment but represented a stable behavioral pattern.

- **Application of the Child Behavior Checklist (CBCL)** To evaluate Adam's social functioning and the extent of his social difficulties, the Child Behavior Checklist (CBCL) developed by Achenbach and Rescorla (2001) was administered to his mother. The CBCL is one of the most widely used behavioral assessment instruments for identifying emotional, behavioral, and social problems in children. Although the instrument provides information across multiple developmental domains, the present study focused specifically on the Social Problems and Withdrawn/Depressed subscales because of their direct relevance to the investigation of social isolation and limited peer interaction.

The selected subscales were used to assess behaviors associated with social withdrawal, loneliness, reluctance to participate in social activities, difficulties forming friendships, and problems maintaining age-appropriate peer relationships. Information obtained from the CBCL was supplemented by parental interviews, teacher reports, and direct observations in order to provide a comprehensive picture of Adam's social functioning.

Table 3 Adam's Scores on the CBCL Social Functioning Subscales

Subscale	Maximum Score	Adam's Score
Social Problems	**22**	**18**
Withdrawn/Depressed	**16**	**13**

Adam obtained a score of 18 out of 22 on the Social Problems subscale, indicating a significant level of social difficulty. His mother reported that he experienced considerable challenges in establishing and maintaining relationships with children of his own age. Although he occasionally showed interest in observing other children, he often struggled to initiate interactions or sustain participation in group activities. Family members noted that he frequently preferred solitary activities and rarely sought opportunities to engage in cooperative play.

- **Application of the Anthropometric and Nutritional Assessment Based:**To evaluate Adam's nutritional status and physical growth, an Anthropometric and Nutritional Assessment based on the World Health Organization (WHO) Child Growth Standards was conducted. The assessment included measurements of body weight, height, Body Mass Index (BMI), weight-for-age, and height-for-age. In addition, information regarding Adam's eating habits, dietary preferences, meal patterns, and medical history was collected through interviews with his parents and review of available medical records. The purpose of the assessment was to determine whether nutritional difficulties were present and to examine their possible relationship with Adam's behavioral, cognitive, and social functioning.

Table 4 Adam's Anthropometric and Nutritional Assessment Results

Indicator	Observed Value	Expected Range for Age (6 Years)	Interpretation
Weight	16.2 kg	18–23 kg	Below expected range
Height	109 cm	112–120 cm	Slightly below expected range
BMI	13.6 kg/m²	Normal: 14.5–17.5 kg/m²	Low BMI
Weight-for-Age	Below 10th percentile	Average percentile range	Underweight
Height-for-Age	Around 15th percentile	Average percentile range	Mild growth delay

The anthropometric assessment applied by Dr. Ibrahim indicated that Adam's physical growth was below the expected range for children of his age. His body weight was noticeably lower than age-related norms, while his height was also slightly below average. The calculated BMI suggested that he was underweight and at risk for nutritional inadequacy. Comparison with WHO growth standards showed that his weight-for-age percentile fell within a low range, indicating a pattern consistent with mild under nutrition.

ANALYSIS, RESULTS, AND DISCUSSION

Adam is a six-year-old Egyptian child in the first grade. At this age, children are expected to develop better attention, self-control, and social interaction skills. However, Adam struggles with attention, impulsivity,

classroom participation, and peer relationships. He also shows signs of social withdrawal and nutritional concerns, which adds another layer to his developmental profile.

From this perspective, Adam's behaviors are influenced by several connected factors. His developmental stage places high demands on self-regulation, while his temperament may include impulsive and easily frustrated responses. These characteristics interact with how adults respond to him at home and in school, which can either support or worsen his difficulties. His nutritional status may also affect his energy, concentration, and overall behavior.

Behavioral Problems : Adam presents a pattern of behavioral difficulties that include features consistent with ADHD, stubbornness, social withdrawal, and nutritional challenges. These behaviors are not separate or random; rather, they interact with each other and are influenced by his developmental stage and daily environments at home and school.

Socially, Adam shows signs of withdrawal and limited engagement with peers. He may prefer solitary activities or avoid sustained interaction with other children. In group settings, his participation is often minimal, and he may struggle to initiate or maintain social communication. This social isolation further limits his opportunities for interaction and learning through peers.

In addition, Adam's nutritional condition represents an important aspect of his overall profile. Observations suggest irregular eating patterns and possible nutritional imbalance, which may contribute to fluctuations in his energy, concentration, and behavior. This physical dimension adds further complexity to his behavioral and social presentation.

Stubbornness: Adam shows clear patterns of stubborn behavior in both home and school settings. This is mainly seen when he refuses instructions, insists on doing things his own way, or struggles to shift from one activity to another. These behaviors are more likely to appear when he is asked to stop something he enjoys or when he is required to follow structured instructions.

At home, Adam may resist daily routines such as tidying up, getting ready for school, or finishing meals. He may delay responding, ignore repeated requests, or continue with what he is doing even after being told to stop. At

times, this leads to tension with caregivers, especially when expectations are not immediately met.

In the classroom, similar behaviors are observed. Adam may resist changing tasks, have difficulty following rules consistently, or insist on continuing an activity beyond the allotted time. This can sometimes look like defiance, but it is often linked to difficulty with flexibility, transitions, and self-regulation.

ADHD: In terms of hyperactivity, Adam often shows a high level of physical movement and difficulty remaining still for extended periods. In classroom and home settings, he tends to shift frequently in his seat, move around the room, and become overly active during tasks that require calm or sustained attention. His activity level becomes more noticeable in unstructured situations, where he may move quickly between activities or engage physically with surrounding objects. Despite this, Adam can sometimes complete tasks when instructions are clear, simple, and closely guided.

Regarding inattention, Adam often appears easily distracted during learning or daily routines. He may shift his focus between different objects or activities and struggle to maintain attention on one task for a consistent period. In school, he can seem disengaged during instruction, yet he may still respond appropriately when directly addressed. This suggests that his attention is inconsistent rather than completely absent. At home, similar patterns are observed, where he may appear not fully focused but still reacts to relevant cues in his environment.

Impulsivity in Adam is reflected in his quick transitions between actions and difficulty sustaining planned behavior. He may move from one task to another without completing the first, or respond immediately to stimuli without considering consequences. At the same time, some of his behaviors may appear stubborn, especially when he resists instructions or insists on doing activities in his own way. This resistance is not constant but tends to emerge in specific situations where he feels pressured or overstimulated.

The results indicate that Adam demonstrated a very high level of ADHD symptomatology across both dimensions of the scale. His score of 24 out of 27 on the Inattention subscale suggests significant difficulties maintaining concentration, following instructions, organizing activities, and sustaining

effort during tasks that require prolonged mental engagement. Reports from both his mother and teacher consistently indicate that Adam is easily distracted by environmental stimuli, frequently moves from one activity to another without completing tasks, and often appears not fully attentive even when he is directly spoken to.

During classroom activities, Adam frequently required repeated reminders to remain focused on assigned tasks. His teacher reported that he often forgot instructions shortly after receiving them and needed continuous supervision to complete academic work. Similar patterns were observed at home, where routine activities such as dressing, organizing personal belongings, or completing simple responsibilities often remained unfinished unless an adult provided ongoing support and redirection.

Adam also obtained a score of 22 out of 27 on the Hyperactivity–Impulsivity subscale, indicating substantial difficulties with behavioral regulation and impulse control. According to parental and teacher reports, he exhibited excessive movement throughout the day, frequently left his seat when expected to remain seated, and displayed difficulty participating calmly in structured activities. He often interrupted conversations, responded before questions were completed, and struggled to wait for his turn during games and social interactions.

Behavioral observations conducted during the assessment period supported these findings. Adam appeared constantly active, frequently changing body position, touching nearby objects, and moving around his environment even during situations that required sustained attention. His activity level was noticeably higher than that typically observed among children of similar age. Although he demonstrated enthusiasm and curiosity, his difficulty regulating movement and impulses often interfered with successful participation in classroom and social activities.

The combined score of 46 out of 54 reflects a clinically significant level of ADHD symptoms. The distribution of scores across both dimensions suggests that Adam experiences substantial difficulties in attention regulation as well as hyperactivity and impulsivity. This profile is consistent with the Combined Type of ADHD as described in the DSM-IV classification system, where symptoms from both domains are present at levels sufficient to interfere with daily functioning.

From a developmental perspective, these findings help explain many of the challenges observed in Adam's everyday life. His attention difficulties contribute to academic struggles, incomplete task performance, and dependence on adult guidance. At the same time, impulsive and hyperactive behaviors create challenges in peer interactions, increase the likelihood of conflicts with adults, and reduce opportunities for successful social engagement.

The assessment also suggests that ADHD symptoms interact with other difficulties identified in the present study. Adam's impulsivity and poor self-regulation appear to intensify conflicts during mealtimes, contributing to persistent struggles surrounding food and nutrition. Likewise, his attentional and behavioral difficulties may limit successful peer interactions, thereby increasing the risk of social withdrawal and isolation. These interconnected difficulties highlight the importance of understanding Adam's developmental profile as a complex system of interacting behavioral, social, and nutritional factors rather than viewing each problem independently.

Social Problems : Adam experiences noticeable difficulties in social interaction, both in school and at home, which affect his ability to build and maintain relationships with others. These challenges are mainly reflected in limited peer engagement, difficulty initiating communication, and reduced participation in group activities.

In the classroom, Adam often appears socially withdrawn. He may prefer to play alone or remain on the margins of group activities rather than actively joining his peers. When interaction does occur, it is usually brief or centered around objects rather than sustained verbal communication. He may also struggle to follow the social rules of play, which can make it harder for him to maintain friendships or engage in cooperative activities.

At home, his social interaction is mostly limited to immediate family members, and even within this setting, his engagement can be inconsistent. He may show interest in others at certain moments but quickly return to solitary activities. This pattern suggests difficulty in maintaining sustained social attention and emotional reciprocity.

Application of the Disruptive Behavior Disorders Rating Scale (DBDRS) to the Case of Adam

The Disruptive Behavior Disorders Rating Scale (DBDRS), developed by Pelham et al. (1992), is a standardized instrument designed to assess behavioral difficulties in children in accordance with DSM-IV criteria. It includes subscales for Attention-Deficit/Hyperactivity Disorder (ADHD), Oppositional Defiant Disorder (ODD), and Conduct Disorder (CD), allowing for a multidimensional evaluation of disruptive behaviors across different settings. In the current study, only the ODD subscale was used, as it was most relevant to assessing Adam's stubbornness, oppositional reactions, resistance to instructions, and difficulty accepting adult authority.

The ODD subscale consists of eight items aligned with DSM-IV criteria, rated on a four-point scale from 0 (Not at All) to 3 (Very Much), with a maximum score of 24. It was completed by both Adam's mother and his classroom teacher to ensure a comprehensive view of his behavior across home and school contexts. Using multiple informants enhances the reliability of the findings and provides a more accurate picture of how these behaviors manifest in different environments.

The results indicate a high level of oppositional and defiant behavior, with Adam obtaining a score of 20 out of 24 on the ODD subscale. This suggests that such behaviors are frequent and have a noticeable impact on his daily functioning. The consistency between parent and teacher reports further indicates that these behaviors are stable across settings rather than being situation-specific.

From a clinical perspective, Adam's oppositional behaviors appear to be strongly linked to underlying difficulties in emotional regulation and cognitive flexibility. His frequent resistance to instructions, argumentativeness, and insistence on controlling situations can be understood as manifestations of limited frustration tolerance and difficulty adapting to external demands. In many situations, when expectations are imposed or routines are changed, Adam's response is not purely intentional defiance, but rather an emotional reaction to perceived loss of control or difficulty processing transitions.

In the home environment, these difficulties are most evident during daily routines such as meals, hygiene activities, and bedtime preparation. His resistance to following instructions may be reinforced by inconsistent responses from caregivers, or by repeated negotiation patterns that unintentionally strengthen oppositional behavior over time. Additionally, his

restricted food preferences and insistence on familiar items may reflect both behavioral rigidity and sensory or routine-based preferences, which are commonly associated with neurodevelopmental difficulties.

In the school setting, similar mechanisms are observed. Adam's oppositional responses during classroom activities often occur in situations that require sustained effort, transitions between tasks, or participation in non-preferred activities. These behaviors may be intensified by attentional difficulties associated with ADHD, which reduce his ability to shift focus smoothly and increase frustration when tasks feel demanding or uninteresting. As a result, resistance may function as a coping response to avoid cognitive overload or perceived failure.

Direct observations further suggest that Adam's oppositional behavior is not constant but context-dependent. He is more likely to comply when instructions are structured, clear, and accompanied by consistent guidance. This indicates that his behavior is influenced more by environmental demands and emotional state than by intentional disobedience alone.

Social Isolation: Adam shows noticeable signs of social isolation in both school and home settings. This is mainly seen in his preference for staying alone and his limited involvement with peers during play or group activities. Instead of actively joining others, he often keeps to himself or observes from a distance.

n the classroom, Adam rarely initiates interaction with other children. Even when opportunities for group play or cooperative tasks are available, he tends to avoid sustained participation. When peers attempt to involve him, his responses are often brief and not always maintained, after which he returns to solitary behavior. Over time, this reduces his chances of developing stable peer relationships and practicing social communication skills.

At home, his interaction with family members is also limited and usually depends on adult prompting. While he may show short moments of engagement, these interactions do not often develop into longer or more meaningful exchanges. This pattern suggests difficulty in maintaining attention within social situations and sustaining reciprocal interaction.

From an interpretive perspective, Adam's social isolation can be linked to several interacting factors. His attention difficulties may reduce his ability to

follow ongoing social interactions, while his behavioral rigidity and limited flexibility make it harder for him to adjust to the spontaneous nature of peer play. In addition, his tendency toward oppositional behavior and frustration may further discourage social engagement.

Nutritional Problems : Information obtained from parental interviews revealed a long history of feeding difficulties. Adam demonstrated highly selective eating habits and accepted only a limited number of foods. His daily diet consisted primarily of a small range of preferred items, while many fruits, vegetables, proteins, and unfamiliar foods were consistently refused. According to his parents, introducing new foods often resulted in resistance, arguments, and emotional distress.

Adam's father reported that mealtimes frequently became a source of family tension. Attempts to encourage dietary variety were often met with refusal, negotiation, or prolonged avoidance behaviors. His mother described him as a child who could spend long periods without eating if presented with foods he disliked. As a result, maintaining adequate nutritional intake had become an ongoing challenge for the family.

The dietary history further suggested that Adam's nutritional intake lacked sufficient diversity. Limited consumption of iron-rich foods, vegetables, and other nutrient-dense foods raised concerns regarding possible micronutrient deficiencies. Although laboratory findings were not available for all nutritional indicators, available medical reports suggested a history of reduced appetite and concerns regarding overall nutritional adequacy.

From a developmental perspective, these findings are particularly important because adequate nutrition plays a critical role in supporting cognitive development, attention regulation, emotional stability, and physical growth. Insufficient nutritional intake may contribute to reduced energy levels, decreased concentration, fatigue, and difficulties in maintaining optimal behavioral functioning. In Adam's case, nutritional concerns appeared to coexist with significant behavioral and social challenges, creating a complex developmental profile.

Observational findings supported the nutritional assessment results. Adam often appeared physically smaller than many children of the same age and occasionally demonstrated low stamina during prolonged activities. Adults

who interacted with him regularly reported fluctuations in attention, activity level, and task persistence that may have been partially influenced by nutritional factors.

The assessment also suggested an important interaction between Adam's nutritional difficulties and his behavioral characteristics. His stubbornness and behavioral rigidity appeared to play a major role in maintaining restrictive eating patterns. Refusal to try unfamiliar foods and resistance to parental guidance limited opportunities to improve dietary quality. Consequently, behavioral factors appeared to contribute directly to nutritional risk.

Furthermore, nutritional difficulties may have indirectly influenced Adam's social and academic functioning. Reduced energy, lower physical endurance, and possible nutritional deficiencies can affect participation in classroom activities, peer interactions, and daily routines. Although nutrition alone cannot explain Adam's developmental difficulties, it appears to be an important contributing factor that interacts with ADHD symptoms, oppositional behavior, and social isolation.

Adam's Positive Characteristics Although Adam presents with behavioral, social, and nutritional difficulties, observations and reports from his mother and teacher also highlight important positive characteristics that reflect his developmental potential and cognitive strengths. These qualities are significant, as they provide a more balanced understanding of his profile and help identify strengths that can be built upon in intervention planning.

One of Adam's most notable strengths is his cognitive ability and learning potential. He shows signs of good understanding when information is presented in a clear and meaningful way. In some situations, especially when he is interested or well-supported, he is able to make simple connections between ideas and recall previous experiences related to what is being discussed. This suggests that his difficulty is not in understanding itself, but rather in maintaining attention and consistency during learning tasks.

Both his mother and teacher report that Adam can show moments of insight and understanding that may not always be visible in routine classroom behavior. When engaged in activities that capture his interest, he may respond appropriately, follow instructions more effectively, and demonstrate better task

involvement. These moments indicate that his cognitive abilities are stronger than his everyday performance sometimes suggests.

Adam also shows curiosity in certain situations, particularly when the activity is hands-on or emotionally engaging. During these moments, he may become more focused, attentive, and responsive. This ability to become engaged suggests that his attention and behavior are influenced by motivation and context, rather than being uniformly impaired across all situations.

In addition, Adam demonstrates the capacity for brief but meaningful social awareness. Although he often struggles with sustained interaction and may appear socially withdrawn, he can respond appropriately when directly engaged in structured or guided interaction. This indicates that his social difficulties are not absolute, but fluctuate depending on the level of support and environmental structure.

Temperament / Personality and Developmental History

In early infancy, Adam was described by his mother as a calm and generally easy baby. He adapted well to routines, was manageable in different settings, and did not show any early signs of behavioral or attention problems. At that stage, his development appeared typical, and his family did not have concerns about his behavior.

As he moved into toddlerhood, some changes began to appear. Adam became more active and slightly more resistant during daily routines such as dressing, bedtime, and mealtimes. He sometimes insisted on doing things his own way or delayed following instructions. However, these behaviors were initially seen as normal for his age and were not considered a sign of a specific difficulty.

During preschool years, Adam's behavior became more noticeable in structured settings. Teachers observed that he often moved quickly between activities, had difficulty staying focused on one task, and could become easily distracted. In free play, he tended to shift from one activity to another without completing what he started. At the same time, he could still respond appropriately when directly guided, especially in activities that interested him.

By early primary school, Adam's difficulties became more consistent and more visible. In the classroom, he struggled with attention, following instructions, and transitioning between tasks. He often needed repeated

reminders to complete work and became frustrated when asked to stop one activity and start another. These challenges were more evident in structured learning situations.

At home, similar patterns were seen. Adam showed resistance during daily routines such as eating, hygiene, and bedtime. He often delayed instructions, negotiated tasks, or refused to comply immediately. These behaviors tended to increase when he was tired or when he was asked to stop something he enjoyed.

Alongside these behavioral difficulties, Adam also began to show signs of social withdrawal. He preferred playing alone and rarely initiated interaction with other children. Even when included in group activities, he often participated briefly before moving away. Over time, this limited his social engagement and peer relationships.

His eating patterns also became a concern. Adam showed a strong preference for a small number of foods and often refused to try new items. Mealtimes sometimes became stressful, which added to the behavioral tension at home.

Overall, Adam's developmental history shows a gradual emergence of challenges that became more clear as he grew older. While his early development appeared typical, difficulties became more noticeable when academic and social demands increased. His current profile reflects a combination of attention difficulties, emotional reactivity, behavioral rigidity, social withdrawal, and nutritional concerns, all of which interact with each other in his daily life.

Recommendations for improvements

Stubbornness recommendations : Addressing stubbornness in children in the Egyptian context requires a coordinated approach between home, school, and community systems. The most effective strategy is the consistent use of positive reinforcement. Cooperative and flexible behaviors should be immediately rewarded at both home and school, while reducing reliance on punishment. A gradual shift from overly authoritarian parenting toward a more structured authoritative style—combining warmth, consistency, and clear limits—can significantly reduce oppositional behavior and improve compliance.

In schools, teachers should use clear routines, short instructions, and predictable classroom structures to reduce conflict and resistance. Given large class sizes in many Egyptian schools, simple behavior management tools such as token systems or reward charts can support engagement and cooperation. Providing limited, structured choices also helps reduce resistance by giving children a sense of control within boundaries.

At the family level, parental guidance programs are essential. Parents should be supported in applying consistent discipline, avoiding emotional escalation, and maintaining stable daily routines, especially around homework, sleep, and screen time. Consistency among caregivers, including extended family members, is important to prevent mixed messages that may reinforce stubborn behavior.

A multidisciplinary approach is recommended when stubbornness is linked with attention or emotional difficulties. Collaboration between teachers, parents, and mental health professionals allows for more accurate assessment and targeted intervention. Early behavioral support and school-based social-emotional programs can strengthen self-regulation, reduce conflict, and promote long-term behavioral adjustment.

ADHD recommendations: ADHD should not be understood merely as a diagnostic label, but as a descriptive framework that identifies patterns of inattention, hyperactivity, and impulsivity that vary significantly from one child to another. Therefore, effective support begins with moving beyond the label itself and toward a comprehensive understanding of the child as an individual. This includes careful examination of developmental history, family dynamics, health factors, and school experiences. A purely diagnostic perspective is insufficient; what is required is a contextual understanding that explains why a child behaves in a certain way rather than simply what behaviors are observed.

In educational and clinical practice, priority should be given to individualized intervention planning before resorting to pharmacological treatment as a first-line solution. While medication may be beneficial for some children, it should not replace thorough behavioral, environmental, and instructional assessment.

Social Problems recommendations: Addressing social problems in children requires strengthening both the school environment and family interactions in a way that supports gradual and natural development of peer relationships. In the Egyptian school context, where classroom density is often high and structured academic demands dominate the day, it is essential to intentionally incorporate structured social learning opportunities. Cooperative learning strategies, peer-assisted activities, and guided group tasks should be integrated into daily instruction to help children practice communication, turn-taking, and conflict resolution in a supervised and supportive setting. Teachers should also be trained to actively facilitate inclusion rather than assuming that social skills will develop spontaneously.

At the classroom level, children who struggle socially benefit significantly from structured peer pairing systems, such as "buddy" arrangements, where a socially competent peer is paired with a child who needs support. This approach helps model appropriate interaction patterns and reduces social isolation during informal school times such as recess or transitions. In addition, schools should implement social skills training programs focusing on key competencies such as initiating conversations, maintaining interactions, interpreting nonverbal cues, and managing disagreements. These skills should be taught explicitly and reinforced consistently across different school settings.

Within the family context, parents should be encouraged to create more opportunities for structured social exposure outside school, such as supervised play dates, participation in sports activities, or enrollment in group-based extracurricular programs. In many Egyptian families, overprotection or limited outdoor peer interaction may unintentionally reduce opportunities for children to develop social confidence. Therefore, parental guidance programs should emphasize balanced supervision that allows the child to experience both independence and safe social exploration.

Finally, interdisciplinary collaboration between teachers, school counselors, and parents is critical to monitor the child's social progress over time. Regular communication helps identify patterns such as peer avoidance, social anxiety, or difficulty sustaining friendships..

Social Isolation recommendations: Reducing social isolation among children requires early, structured intervention that targets both the school

environment and the child's daily social experiences. In the Egyptian school context, where academic pressures and large class sizes may limit individualized attention, it becomes essential to deliberately create structured opportunities for peer engagement. Teachers should organize small-group activities that require cooperation and shared responsibility, such as group projects, classroom games, and collaborative problem-solving tasks. These structured interactions help children who tend to withdraw gradually build confidence in engaging with peers in a predictable and supportive setting.

At the classroom level, teachers should actively monitor children who appear socially withdrawn and encourage gradual participation rather than forcing immediate group integration.

Within the family context, parents should be guided to increase opportunities for safe and consistent peer exposure outside the classroom. In many Egyptian families, limited structured social exposure or overreliance on adult-directed activities may unintentionally reinforce withdrawal behaviors. Enrolling the child in group-based extracurricular activities such as sports clubs, art classes, or community programs can provide natural environments for social learning. Parents should also be encouraged to arrange brief, supervised peer interactions at home to help the child practice initiating and maintaining friendships in a familiar setting.

Nutritional Problems recommendations: Addressing nutritional problems in children requires a comprehensive approach that integrates family education, school-based monitoring, and access to primary healthcare services. In the Egyptian context, where dietary habits may be influenced by socioeconomic conditions, cultural food preferences, and irregular meal patterns. It is important to promote awareness among parents about the importance of balanced nutrition for growth, cognitive development, and behavioral regulation. Parents should be guided on providing regular meals that include essential food groups such as proteins, fruits, vegetables, and whole grains, while limiting excessive intake of processed foods, sugars, and low-nutrient snacks.

REFERENCES

Achenbach, T. M., & Rescorla, L. A. (2001). ***Manual for the ASEBA school-age forms & profiles: child behavior checklist for ages 6-18, teacher's report form, youth self-report: an integrated system of multi-informant assessment***. University of Vermont, research center for children youth & families.

Achenbach, T. M., & Rescorla, L. A. (2001). ***Manual for the ASEBA School-Age Forms & Profiles***. Burlington, VT: University of Vermont, Research Center for Children, Youth, and Families.

American Psychiatric Association. (2000). ***Diagnostic and statistical manual of mental disorders (4th ed., text rev.).*** Washington, DC: Author. https://psycnet.apa.org/record/2000-02510-000

Asher, S. R., & Coie, J. D. (Eds.). (1990). ***Peer rejection in childhood***. CUP Archive.

Asher, S. R., & Paquette, J. A. (2003). Loneliness and peer relations in childhood. ***Current directions in psychological science***, 12(3), 75-78. https://doi.org/10.1111/1467-8721.01233

Attewell, P. A., Suazo-Garcia, B., & Battle, J. (2003). Computers and young children: Social benefit or social problem? ***Social forces***, 82(1), 277-296. https://doi.org/10.1353/sof.2003.0075

Baer, D. M. (1961). ***Child Development***: A@ systematic and Empirical Theory. Appleton-Century-Crofts.

Bandura, A. (1974). Behavior theory and the models of man. ***American psychologist,*** 29(12), 859.

Bandura, A., & Walters, R. H. (1963***). Social learning and personality development.*** Holt, Rinehart & Winston.

Barkley, R. A. (1997). ***ADHD and the nature of self-control***. Guilford press.

Barkley, R. A. (2006). A handbook for diagnosis and treatment. New York: Guilford Publications, 3-75.

Barkley, R. A. (2006a). ***A handbook for diagnosis and treatment***. New York: Guilford Publications, 3-75.

Barkley, R. A. (2006b). ***Attention-deficit hyperactivity disorder: A handbook for diagnosis and treatment (3rd ed.).*** Guilford Press. https://www.guilford.com/books/Attention-Deficit-Hyperactivity-Disorder/Russell-Barkley/9781593852101

Barrett, P. M., Dadds, M. R., & Rapee, R. M. (1996). Family treatment of childhood anxiety: a controlled trial. ***Journal of consulting and clinical psychology***, 64(2), 333–342. https://doi.org/10.1037/0022-006X.64.2.333

Bennett, A. (2004). Case study methods: Design, use, and comparative advantages. Models, numbers, and cases: ***Methods for studying international relations,*** 2(1), 19-55.

Berk, L. (2005). ***Child development***. Pearson Higher Education AU.

Blossner, M., De Onis, M., & Prüss-Üstün, A. (2005). ***Malnutrition: quantifying the health impact at national and local levels***. World Health Organization.

Boccio, J. R., & Iyengar, V. (2003). Iron deficiency: causes, consequences, and strategies to overcome this nutritional problem. ***Biological Trace Element Research***, 94(1), 1-31

Bogdan, R., & Biklen, S. K. (1997). ***Qualitative research for education*** (Vol. 368). Boston, MA: Allyn & Bacon.

Borrell-Carrió, F., Suchman, A. L., & Epstein, R. M. (2004). The biopsychosocial model 25 years later: principles, practice, and scientific inquiry. ***The Annals of Family Medicine,*** 2(6), 576-582.

Bradley, R. H., & Corwyn, R. F. (2002). Socioeconomic status and child development. ***Annual review of psychology,*** 53(2002), 371-399. https://doi.org/10.1146/annurev.psych.53.100901.135233

Bronfenbrenner, U. (1979). ***The Ecology of Human Development: Experiments by Nature and Design. Cambridge***, MA: Harvard University Press. https://archive.org/details/ecologyofhumande00bron

Bronfenbrenner, U. (1979***). The ecology of human development: Experiments by nature and design***. Harvard University Press.

Bronfenbrenner, U. (2005). ***Ecological systems theory*** (1992).

Burket, R. C., Cox, D. J., Tam, A. P., Ritterband, L., Borowitz, S., Sutphen, J., ... & Kovatchev, B. (2006). Does" stubbornness" have a role in pediatric constipation?. ***Journal of Developmental & Behavioral Pediatrics***, 27(2), 106-111.

Burket, R. C., Cox, D. J., Tam, A. P., Ritterband, L., Borowitz, S., Sutphen, J., ... & Kovatchev, B. (2006). Does" stubbornness" have a role in pediatric constipation?. ***Journal of Developmental & Behavioral Pediatrics***, 27(2), 106-111. https://journals.lww.com/jrnldbp/toc/2006/04000

Cabezas, H., Pawlowski, C. W., Mayer, A. L., & Hoagland, N. T. (2005). Sustainable systems theory: ecological and other aspects. ***Journal of cleaner production***, 13(5), 455-467. https://doi.org/10.1016/j.jclepro.2003.09.011

Campbell, S. B. (1995). Behavior problems in preschool children: A review of recent research. ***Journal of child Psychology and Psychiatry***, 36(1), 113-149. https://doi.org/10.1111/j.1469-7610.1995.tb01657.x

Compas, B. E. (1987). Coping with stress during childhood and adolescence. ***Psychological bulletin***, 101(3), 393.

Creswell, J. W. (1998). Qualitative inquiry and research design: Choosing among five traditions. Sage Publications https://repositorio.uasb.edu.ec/server/api/core/bitstreams/67bf3841-9d1f-4eee-bd62-349225d29c69/content

Crompton, D. W., & Nesheim, M. C. (2002). Nutritional impact of intestinal helminthiasis during the human life cycle. Annual review of nutrition, 22(1), 35-59.

Crompton, D. W. T. (Ed.). (2006). ***Preventive chemotherapy in human helminthiasis: coordinated use of anthelminthic drugs in control interventions***: a manual for health professionals and programm managers. World Health Organization.

Denzin, N. K. (1978). ***The research act: A theoretical introduction to sociological methods (2nd ed.)***. McGraw-Hill.

DuPaul, G. J., & Stoner, G. (2003***). ADHD in the Schools: Assessment and Intervention Strategies*** (2nd ed.). Guilford Press.

DuPaul, G. J., Power, T. J., Anastopoulos, A. D., & Reid, R. (1998***). ADHD Rating Scale-IV: Checklists, Norms, and Clinical Interpretation***. New York: Guilford Press.

Elliott, G. C., Cunningham, S. M., Linder, M., Colangelo, M., & Gross, M. (2005). Child physical abuse and self-perceived social isolation among adolescents. ***Journal of interpersonal violence,*** 20(12), 1663-1684. https://doi.org/10.1177/0886260505281439

Engel, G. L. (1977). The need for a new medical model: a challenge for biomedicine. ***Science***, 196(4286), 129-136. https://doi.org/10.1126/science.847460

Erikson, E. H. (1963). ***Childhood and Society***. 2d ed., rev. and enl. New York, Norton. https://wwnorton.com/books/9780393310682

Erol, N., Simsek, Z., Oner, O., & Munir, K. (2005). Behavioral and emotional problems among Turkish children at ages 2 to 3 years. Journal of the American Academy of ***Child & Adolescent Psychiatry***, 44(1), 80-87. https://doi.org/10.1097/01.chi.0000145234.18056.82

Forehand, R. L., McMahon, R. J., & Wahler, R. G. (1981***). Helping the noncompliant child:*** A clinician's guide to parent training. (No Title).

Gambrel, P. A., & Cianci, R. (2003). Maslow's hierarchy of needs: Does it apply in a collectivist culture. ***Journal of Applied Management and Entrepreneurship,*** 8(2), 143.

Gawel, J. E. (1997). ***Herzberg's Theory of Motivation and Maslow's Hierarchy of Needs.*** ERIC/AE Digest.

George, E., & Engel, L. (1980). The clinical application of the biopsychosocial model. ***American journal of Psychiatry***, 137(5), 535-544

Ghosh, S., & Shah, D. (2004). *Nutritional problems in urban slum children.* Indian pediatr.

Gortmaker, S. L., Walker, D. K., Weitzman, M., & Sobol, A. M. (1990). Chronic conditions, socioeconomic risks, and behavioral problems in children and adolescents. ***Pediatrics,*** 85(3), 267-276. https://doi.org/10.1542/peds.85.3.267

Goulet, O., Lebenthal, E., Branski, D., Martin, A., Antoine, J. M., & Jones, P. J. (2006). Nutritional solutions to major health problems of preschool children: how to optimise growth and development. Journal of Pediatric Gastroenterology & Nutrition, 43, S1-S3.

Grantham-McGregor, S., & Ani, C. (2001). A review of studies on the effect of iron deficiency on cognitive development in children. ***The Journal of nutrition***, 131(2), 649S-668S.

Grantham-McGregor, S., Cheung, Y. B., Cueto, S., Glewwe, P., Richter, L., & Strupp, B. (2006). Developmental potential in the first 5 years for children in developing countries. ***The lancet,*** 369(9555), 60-70.

Gresham, F. M., & Elliott, S. N. (1990). ***Social skills rating system*** (SSRS). Minneapolis, MN.

Hartley, R. I., & Sturm, P. (1997). Triangulation. Computer vision and image understanding, 68(2), 146-157. https://doi.org/10.1006/cviu.1997.0547

Hartup, W. W., & Stevens, N. (1997). Friendships and adaptation in the life course. ***Psychological Bulletin,*** 121(3), 355–370. https://doi.org/10.1037/0033-2909.121.3.355

Hawker DSJ, Boulton MJ.(2000). Twenty Years' Research on Peer Victimization and Psychosocial Maladjustment: A Meta-analytic Review of Cross-sectional Studies. ***The Journal of Child Psychology and Psychiatry and Allied Disciplines***. 2000;41(4):441-455. https://doi.org/10.1111/1469-7610.00629

Hynd, G. W., Voeller, K. K., Hern, K. L., & Marshall, R. M. (1991). Neurobiological basis of attention-deficit hyperactivity disorder (ADHD). ***School Psychology Review***, 20(2), 174-186.

Kazdin, A. E. (2005). ***Parent Management Training: Treatment for Oppositional, Aggressive, and Antisocial Behavior in Children and Adolescents***. Oxford University Press. https://global.oup.com/academic/product/parent-management-training-9780195158093

Kearney, C. A., & Kearney, C. A. (2003). ***Casebook in child behavior disorders***. Thomson/Wadsworth.

Killeen, P. R., & Fetterman, J. G. (1988). A behavioral theory of timing. ***Psychological review,*** 95(2), 274.

Kimchi, J., Polivka, B., & Stevenson, J. S. (1991). Triangulation: operational definitions. Nursing research, 40(6), 364-366.

Kolko, D. J., & Kazdin, A. E. (1993). Emotional/behavioral problems in clinic and nonclinic children: Correspondence among child, parent and teacher reports. ***Journal of child psychology and psychiatry,*** 34(6), 991-1006. https://doi.org/10.1111/j.1469-7610.1993.tb01103.x

Koltko-Rivera, M. E. (2006). Rediscovering the later version of Maslow's hierarchy of needs: Self-transcendence and opportunities for theory, research, and unification. ***Review of general psychology, 10(4), 302-317.***

Kupersmidt, J. B., & Dodge, K. A. (2004). ***Children's peer relations: From development to intervention (pp. xvi-289)***. American Psychological Association.

Ladd, G. W. (1999). Peer relationships and social competence during early and middle childhood. Annual review of psychology, 50(1), 333-359. https://doi.org/10.1146/annurev.psych.50.1.333

Leventhal, H., & Cameron, L. (1987). Behavioral theories and the problem of compliance. ***Patient education and counseling***, 10(2), 117-138.

Lewinsohn, P. M., & Gotlib, I. H. (1995). ***Behavioral theory and treatment of depression***. In E. E. Beckham & W. R. Leber (Eds.), Handbook of depression (2nd ed)

Liu, J., & Raine, A. (2006). The effect of childhood malnutrition on externalizing behavior. Current opinion in pediatrics, 18(5), 565-570. https://doi.org/10.1097/01.mop.0000245360.13949.91

Liu, J., Raine, A., Venables, P. H., Dalais, C., & Mednick, S. A. (2003). Malnutrition at age 3 years and lower cognitive ability at age 11 years: independence from psychosocial adversity. ***Archives of pediatrics & adolescent medicine***, 157(6), 593-600. https://doi.org/10.1001/archpedi.157.6.593

Liu, X., Kurita, H., Guo, C., Miyake, Y., Ze, J., & Cao, H. (1999). Prevalence and risk factors of behavioral and emotional problems among Chinese children aged 6 through 11 years. ***Journal of the American Academy of Child & Adolescent Psychiatry,*** 38(6), 708-715. https://doi.org/10.1097/00004583-199906000-00018

Locke, K. (2002). Qualitative research and evaluation methods***. Organizational Research Methods,*** 5(3), 299.

Mash, E. J., & Barkley, R. A. (Eds.). (2002). ***Child psychopathology***. Guilford Press.

Maslow, A. H. (1943). A theory of human motivation. ***Psychological Review,*** 50(4), 370–396. https://doi.org/10.1037/h0054346

Mathes, E. W. (1981). Maslow's hierarchy of needs as a guide for living. ***Journal of Humanistic Psychology,*** 21(4), 69-72.

McMahon, R. J., & Frick, P. J. (2005). Evidence-based assessment of conduct problems in children and adolescents. ***Journal of Clinical Child and Adolescent Psychology***, 34(3), 477-505. https://doi.org/10.1207/s15374424jccp3403_6

Merriam, S. B. (1998). ***Qualitative research and case study applications in education***. Jossey-Bass.

Merriam, S. B. (1998). ***Qualitative research and case study applications in education***. Jossey-Bass.

Miguel, E., & Kremer, M. (2004). Worms: identifying impacts on education and health in the presence of treatment externalities. ***Econometrica***, 72(1), 159-217. https://doi.org/10.1111/j.1468-0262.2004.00481.x

Müller, O., & Krawinkel, M. (2005). Malnutrition and health in developing countries. ***Cmaj,*** 173(3), 279-286. DOI: https://doi.org/10.1503/cmaj.050342

Nelson, M. (2000). Childhood nutrition and poverty. **Proceedings of the nutrition society,** 59(2), 307-315. https://doi.org//10.1017/S0029665100000343

Newcomb, A. F., Bukowski, W. M., & Pattee, L. (1993). Children's peer relations: a meta-analytic review of popular, rejected, neglected, controversial, and average sociometric status. ***Psychological bulletin,*** 113(1), 99. https://doi.org/10.1037/0033-2909.113.1.99

Ollendick, T. H., & March, J. S. (Eds.). (2004). ***Phobic and anxiety disorders in children and adolescents: A clinician's guide to effective psychosocial and pharmacological interventions***. Oxford University Press.

Parker, J. G., & Asher, S. R. (1987). Peer relations and later personal adjustment: Are low-accepted children at risk?. ***Psychological bulletin,*** 102(3), 357. https://doi.org/10.1037/0033-2909.102.3.357

Patterson, G. R. (1982). ***Coercive family process***. Castalia Publishing.

Patterson, G. R., Chamberlain, P., & Reid, J. B. (1982). A comparative evaluation of a parent-training program. ***Behavior therapy***, 13(5), 638-650.

Patterson, G. R., Reid, J. B., & Dishion, T. J. (1992). ***Antisocial boys*** (Vol. 4). Castalia Publishing Company.

Patton, M. Q. (2002). ***Qualitative research and evaluation methods*** (3rd ed.). Sage Publications.

Pelham, W. E., Gnagy, E. M., Greenslade, K. E., & Milich, R. (1992). Teacher ratings of DSM-III-R symptoms for the disruptive behavior disorders. Journal of the American Academy of Child & Adolescent Psychiatry, 31(2), 210–218. https://doi.org/10.1097/00004583-199203000-00006

Pelham, W. E., Gnagy, E. M., Greenslade, K. E., & Milich, R. (1992). Teacher ratings of DSM-III-R symptoms for the disruptive behavior disorders***. Journal of the American Academy of Child & Adolescent Psychiatry,*** 31(2), 210–218. https://doi.org/10.1097/00004583-199203000-00006

Pelham, W. E., Gnagy, E. M., Greenslade, K. E., & Milich, R. (1992). Teacher ratings of DSM-III-R symptoms for the disruptive behavior disorders. ***Journal of the American Academy of Child & Adolescent Psychiatry,*** 31(2), 210–218. https://doi.org/10.1097/00004583-199203000-00006

Phillips, D. A., & Shonkoff, J. P. (Eds.). (2000). ***From neurons to neighborhoods***: The science of early childhood development.

Pollitt, E. (1990). ***Malnutrition and Infection in the Classroom*** (pp. 211-pp). UNESCO.

Richard, B. A., & Dodge, K. A. (1982). Social maladjustment and problem solving in school-aged children. ***Journal of Consulting and Clinical psychology***, 50(2), 226. https://doi.org/10.1016/0145-2134(95)00086-N

Rosenberg, I. M., Rosenberg, Y. L., & Turin, B. S. (1998). Return of the Stubborn and Rebellious Son: An Independent Sequel on the Prediction of Future Criminality. ***Brandeis LJ,*** 37, 511.

Rothery, M. (2001). Ecological systems theory. Theoretical perspectives for direct social work practice: ***A generalist-eclectic approach***, 65-82.

Rubin, K. H., & Mills, R. S. (1988). The many faces of social isolation in childhood. ***Journal of consulting and clinical psychology***, 56(6), 916. https://psycnet.apa.org/doi/10.1037/0022-006X.56.6.916

Rubin, K. H., Bukowski, W., & Parker, J. G. (2006). Peer interactions, relationships, and groups. ***Handbook of child psychology***, 3(5), 619-700. https://www.researchgate.net/profile/Kenneth-Rubin-2/publication/228017617_Handbook_of_Child_Psychology/links/5a3a98d2a6fdcc3d07afc11b/Handbook-of-Child-Psychology.pdf

Rubin, K. H., Burgess, K., Kennedy, A. E., & Stewart, S. (2003). Social withdrawal and inhibition in childhood. ***Child psychopathology***, 2, 372-406.

Rutter, M. (2006). ***Genes and behavior: nature-nurture interplay explained***. Blackwell Publishing.

Ryan, D. P. J. (2001). ***Bronfenbrenner's ecological systems theory***. Retrieved February, 17th, 2006

Salazar, M. K. (1991). Comparison of four behavioral theories: A literature review. ***Aaohn Journal***, 39(3), 128-135.

Santrock, J. W. (2002). ***Child Development*** (10th ed). McGraw-Hill, 2002 ISBN 0071217150, 9780071217156

Schneider, J. W. (1985). Social problems theory: The constructionist view. ***Annual review of sociology,*** 11(1), 209-229.

Schultz, W. (2006). Behavioral theories and the neurophysiology of reward. ***Annu. Rev. Psychol.***, 57(1), 87-115.

Schwartz, M. B., & Puhl, R. (2003). Childhood obesity: a societal problem to solve. Obesity reviews, 4(1), 57-71. https://doi.org/10.1046/j.1467-789X.2003.00093.x

Scrimshaw, N. S. (1991). Iron deficiency. Scientific American, 265(4), 46-53. https://www.jstor.org/stable/24938757

Siporin, M. (1980). ***Ecological systems theory in social work***. J. Soc. & Soc. Welfare, 7, 507.

Sirgy, M. J. (1986). A Quality-of-Life Theory Derived from Maslow's Developmental Perspective: 'Quality'Is Related to Progressive Satisfaction of a Hierarchy of Needs, Lower Order and Higher. ***American journal of Economics and Sociology***, 45(3), 329-342.

Skinner, B. F. (1953). ***Science and Human Behavior***. New York: Macmillan.

Skinner, B. F. (1965). ***Science and human behavior*** (No. 92904). Simon and Schuster. http://www.bfskinner.org/books4sale.asp

Smith, R. E. (1988). The logic and design of case study research. ***The sport psychologist,*** 2(1), 1-12.

Stake, R. E. (1995). ***The art of case study research***. Sage Publications.

Stein, M. T., & Zweiback, M. (2004). " Not listening, stubborn, and problems with sleeping"-Interpreting a parent's concerns at a 3 year old's health supervision visit. ***Journal of Developmental & Behavioral Pediatrics,*** 25, S20-S25. https://journals.lww.com/jrnldbp/toc/2004/10001

Stephenson, L. S., Latham, M. C., & Ottesen, E. A. (2000). ***Malnutrition and parasitic helminth infections. Parasitology***, 121(S1), S23-S38. https://doi.org/10.1017/S0031182000006491

Sullivan, P. B., Lambert, B., Rose, M., Ford-Adams, M., Johnson, A., & Griffiths, P. (2000). Prevalence and severity of feeding and nutritional problems in children with neurological impairment: Oxford Feeding Study**.** ***Developmental medicine & Child neurology***, 42(10), 674-680. https://doi.org/10.1111/j.1469-8749.2000.tb00678.x

Thurmond, V. A. (2001). The point of triangulation. ***Journal of nursing scholarship***, 33(3), 253-258.

UNICEF. (2006). ***The State of the World's Children 2006***: Excluded and Invisible. United Nations Children's Fund.

Wahler, R. G., & Fox, J. J. (1981). Setting events in applied behavior analysis: Toward a conceptual and methodological expansion. ***Journal of Applied Behavior Analysis***, 14(3), 327-338. https://doi.org/10.1901/jaba.1981.14-327

Woodside, A. G., Caldwell, M., & Spurr, R. (2006). Advancing ecological systems theory in lifestyle, leisure, and travel research**.** ***Journal of Travel Research***, 44(3), 259-272.

World Health Organization (WHO) (2005). ***Malnutrition Fact Sheet***. Retrieved date on 17th Feb 2006 available at https://www.who.int/health-topics/malnutrition

World Health Organization. (2006). **E*arly Child Development***: A Powerful Equalizer. World Health Organization.

World Health Organization. (2006). ***Nutrition in Adolescence***: Issues and Challenges for the Health Sector. WHO.

World Health Organization. (2006). ***WHO Child Growth Standards:*** Length/height-for-age, weight-for-age, weight-for-length, weight-for-height and body mass index-for-age. Geneva: WHO.

Wu, J., & David, J. L. (2002). A spatially explicit hierarchical approach to modeling complex ecological systems: theory and applications. ***Ecological modelling,*** 153(1-2), 7-26.

Yin, R. K. (2003). ***Case study research: Design and methods*** (3rd ed.). Sage Publications.

Yin, R. K. (2003). Designing case studies. ***Qualitative research methods***, 5(14), 359-386.